REMARKS

Claims 1 and 3-17 are pending. Claim 1 is amended herein. Support for the amendments is detailed below.

Applicants' Response to the Claim Rejections under 35 U.S.C. §112

Claims 1 and 3-17 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter.

Specifically, in the amendment reference to the Dv50/Dv10 ratio being 1.8 or more was not properly removed. Applicants have removed the reference to the ratio by amendment to claim 1 herein. Wherefore, applicants respectfully submit that claim 1 and its respective dependents are now definite.

Applicants' Response to the Claim Rejections under 35 U.S.C. §103

Claims 1, 3, 6-8 and 10-16 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Takiguchi et al.* (US 2004/0043315) in view of *JP '423* (JP 2002-182423).

In response thereto, applicants respectfully submit that the combination of references does not render the invention as now claimed obvious for at least the reason that the combination does not disclose all the features of the invention as claimed, nor is there any prompting from the references or within the knowledge of the art which would lead a skilled artisan to derive the current invention.

Specifically, the combination of references at least fails to provide for the feature of claim 1 which states that the silica fine particle (A) is nonconductive.

The rejection relies upon the disclosures in Takiguchi of the conductive inorganic metallic-compound fine particles as being equivalent to the silica fine particles of the claims. As described at paragraph [0070], the metallic-compound fine particle may comprise a silicon oxide. Further, the rejection admits that the sphericity range is not disclosed by Takiguchi, and relies upon the previously cited disclosures of JP' 423 for this element. JP'423 is not otherwise relied upon, nor does it contain any teaching regarding the features for which Takaiguchi is relied upon by the rejection.

Takiguchi is teaching the metallic-compound fine particles as having a Dv50/Dv10 ratio of 2 or more; whereas, the present invention is utilizing a silica inorganic fine powder having this ratio. Specifically, according to one possible embodiment of the present invention, as described in applicants' specification from pages 7-13, the toner includes an external additive comprising: (1) silica fine particle (A) which has the characteristics set forth in claim 1; (2) possibly silica particle (B) which has a smaller volume average particle diameter in the range of 5 to 80nm; and, (3) a conductive organic fine particle which may be a silicon oxide fine particle surface-treated with tin oxide doped antimony (see pg.12, l. 26 to pg.13, l. 2). Contrary, Takiguchi teaches the metallic-compound fine particle as having the Dv50/Dv10 ratio, and a silica inorganic fine particle with an average particle size of 4 to 80nm (see ¶[0078]). As such, the particles having the Dv50/Dv10 ratio in Takiguchi must be the conductive inorganic compounds. As set forth in

Table 1 of Takiguchi, all of the particles have a significant tin oxide weight percentage (wt. %) with the exception of compound no. 18 which utilizes zinc oxide (see ¶[0287]).

Applicant's claim 1, as now presented distinguishing that the claimed silica particle is not a conductive inorganic metallic-compound fine particle. This property is inherent to the particle. In order to prove this, the Applicant submits the attached reference material. The reference material describes that the resistivity of silica fine particles is 1×10^{13} Ωm (= 1×10^{15} Ωcm). From this description, it is evident that silica is inherently nonconductive.

However, as noted above, the particle of Takiguchi must be conductive. JP '423 likewise does not disclose this feature of the present invention. As such, the combination of references does not provide for all the features of the presently claimed invention. Further, there is no reason whereby a skilled artisan would derive this feature based on the combination of references. As noted in M.P.E.P. §2143.01, under U.S. patent law a proposed modification cannot render the prior art unsatisfactory for its intended purpose. Such a modification would be necessary in order for the prior art to reach the present invention. Specifically, a skilled artisan would not convert the conductive material of Takiguchi to a non-conductive material, as the conductivity of the particles within Takiguchi is necessary for the invention thereof to function.

Wherefore, applicants respectfully submit that claim 1 as now presented and its respective dependent claims are not obvious in light of the combination of Takiguchi and JP '423.

Claims 4 and 5 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Takiguchi et al.* in view of *JP '423* as applied above, and further in view of *JP '450* (JP 2003-029450).

Claim 8 is rejected under 35 U.S.C. §103(a) as being unpatentable over *Takiguchi et al.* in view of *JP '423* as applied above, and further in view of *Hagi et al.* (US 5,776,646).

Claim 17 is rejected under 35 U.S.C. §103(a) as being unpatentable over *Takiguchi et al.* in view of *JP '423* as applied above, and further in view of *Niwa* (US 2003/0027070).

As these rejections all depend from the rejection of claim 1, by addressing the rejection of claim 1 as detailed above, likewise these rejections should be considered addressed by nature of their dependency.

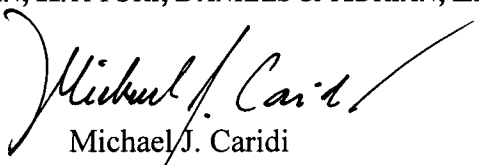
In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP



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MJC/tw

Enclosures: Reference w/ partial translation

Partial translation of the reference

	Compound	crystal structure	resistivity 10 Ω m	temperature θ /℃
Oxides	SiO2	hexagonal	1×10^{21}	20

表 14.10 合金の電気抵抗率およびその温度係数（つづき） ⇨CD-ROM

合　金	組　成(質量%)	温 度 θ/°C	抵抗率 $\rho/10^{-8}\,\Omega\,m$	抵抗率の温度係数 $\alpha/10^{-3}\,K^{-1}$
カンタル	Cr(22～28), Al(5.0～5.5), Co(1.5～3.0), 残 Fe	20	1.45	0.06
ケイ素鋼	Si(4.5), 残 Fe	室 温	0.625	0.75
コンスタンタン	Cu(60), Ni(40)	室 温	0.49	0.01
青 銅	Cu(88), Sn(12)	室 温	0.13～0.18	0.5
炭素鋼	C(1.22), Mn(0.35), 残 Fe	20	0.196	
ニクロム	Ni(60), Cr(20)	20	1.0	4
白金ロジウム	Pt(90), Rh(10)	20	0.22	1.4
ハステロイ C	Mo(17), Cr(15), Fe(5), W(4), 残 Ni	25	1.30	$<10^{-1}$
ハステロイ N	Mo(17), Cr(7), Fe(5), 残 Ni	24	1.39	
パーマロイ	Fe(54.7), Ni(45), Mn(0.3)	20	0.45	
	Fe(21.2), Ni(78.5), Mn(0.3)	20	0.16	
マンガニン	Cu(84), Mn(12), Ni(4)	20	0.44	0.010
ミュー金金	Fe(18), Ni(75), Cr(2), Cu(5)	20	0.62	
リン青銅	Sn(5.08), P(0.01), 残 Cu	20	0.076	

表 14.11 種々の無機化合物の結晶型と電気抵抗率 ⇨CD-ROM

	化合物	結晶構造	抵抗率 ρ $10^{-8}\,\Omega\,m$	温 度 θ/°C		化合物	結晶構造	抵抗率 ρ $10^{-8}\,\Omega\,m$	温 度 θ/°C
ホウ化物	CrB_4	六方(C 32)	21	室温	酸化物	Cr_2O_3	菱 面	1.3×10^{6}	350
	MoB	正方(α)	45	〃		HfO_2	単 斜	5×10^{19}	450
	〃	正方(β)	28	〃		MgO	立方(B 1)	3×10^{14}	850
	NbB	斜 方	6.45	〃		SiO_2	六 方	1×10^{21}	20
	TiB_2	六方(C 32)	28.4	〃		TiO_2	正 方	1.2×10^{16}	800
	MgB_2	〃	115	〃		ZrO_2	単 斜	1×10^{12}	385
炭化物	B_4C	六 方	0.8	室温	ケイ化物	$MoSi_2$	正方(C 11)	21.5	室温
	MoC	〃	97	〃		$NbSi_2$	斜方 $CrSi_2$ 型	6.8	〃
	NbC	立方(B 1)	74	〃		$TiSi_2$	〃	123	〃
	SiC(β)	立 方	107	〃		VSi_2	〃	9.5	〃
	TiC	B 1	180	〃		ZrRuSi	六方(C 22)	420	0
	WC	六 方	80	〃		ZrRhSi	斜方(C 23)	250	〃
	ZrC	立方(B 1)	70	〃	リン化物	NiP	斜 方	300	0
窒化物	NbN	立方(B 1)	200	室温		SiP_2	立方(C 2)	30	室温
	Ta_2N	六 方	135	〃		Mo_3P	正 方	140	0
	TiN	立方(B 1)	21.7	〃		ZrRuP	六方(C 22)	3300	〃
	VN	〃	200	〃		NbPS	斜 方	3000	〃
	ZrN	〃	13.6	〃		$LaRu_4P_{12}$	立 方	680	〃
酸化物	Al_2O_3	菱 面	1×10^{23}	14	硫化物	TiS	六方(B 8)	400	室温
	BeO	六 方	4×10^{14}	600		CuS_2	立方(C 2)	150	〃
	CeO	立 方	6.5×10^{19}	800		CuV_2S_4	立 方	600	〃

結晶構造の記号については，福山良一，福山博子，"岡立全書 16. 構造無機化学 I"，岡立出版 (1985)，p. 247 参照.
[R.C. Weast, "Handbook of Chemistry and Physics", CRC (1980)]

表 14.12 金属伝導および金属-半導体転移を示す酸化物の電気抵抗率 ⇨CD-ROM

化合物	結晶構造	抵抗率[a] ρ Ω m	T K	転移温度 T_{tr}/K	化合物	結晶構造	抵抗率[a] ρ Ω m	T K	転移温度 T_{tr}/K
CrO_2	正方	2.8×10^{-6}	300		OsO_2	正方	6×10^{-7}	300	
Fe_3O_4	立方	4×10^{-5}(M)	130	120		〃	3.2×10^{-9}	4.2	
	〃	4×10^{-3}(M)	110		PtO_2	斜方	8×10^{-6}	300	
IrO_2	正方	4.9×10^{-7}	300			〃	3×10^{-9}	4.2	
	〃	1.7×10^{-9}	4.2		$ReO_2(\beta)$	単斜	1.0×10^{-6}	300	
MnO_2	正方	1.1×10^{-6}	300			〃	1.2×10^{-7}	4.2	
MoO_2	単斜	8.8×10^{-7}	300		ReO_3	立方	1.8×10^{-7}	300	
NbO	立方	2×10^{-7}	300		RhO_2	正方	$<10^{-6}$	300	
NbO_2	正方	2×10^{-4}(M)	1130	1125	RuO_2	正方	3.5×10^{-7}	300	
	〃	2×10^{-4}(I)	1120			〃	2.2×10^{-9}	4.2	